

EXHIBIT A

**IN THE UNITED STATES DISTRICT COURT FOR
THE WESTERN DISTRICT OF PENNSYLVANIA**

DONALD J. TRUMP FOR PRESIDENT,
INC., *et al.*,

Plaintiffs,

v.

No. 2:20-cv-00966-NR

KATHY BOOCKVAR, in her capacity as
Secretary of the Commonwealth of
Pennsylvania, *et al.*,

Defendants,

Declaration of Dr. Ranit Mishori (MD, MHS, FAAFP)

Pursuant to 28 U.S.C. § 1746, I hereby declare as follows:

I. Background

1. I am Dr. Ranit Mishori. I am a Professor of Family Medicine at the Georgetown University School of Medicine, where I am the director of the department's Global Health Initiatives, Health Policy fellowship and our practice-based research network. A fellow of the American Academy of Family Physicians and Diplomate of the American Board of Family Medicine, I did my residency training at the Georgetown University/Providence Hospital Family Medicine Residency program. I received my medical degree from Georgetown University School of Medicine and a master's degree in International Health from the Johns Hopkins Bloomberg School of Public Health, in the Disease Control and Prevention Track (focusing on the science of how to halt the spread of infectious disease).
2. I am a practicing family physician seeing patients of all ages, all genders, and all socio-demographic groups, managing multiple acute and chronic conditions, including coronavirus infections. I regularly counsel patients and their families about evidence-based measures for prevention, screening, testing, treatment and follow up of coronavirus infections. I have spoken to the press and written about coronavirus infection prevention and management in the context of carceral settings.
3. To ensure accurate public information about COVID-19, I have also served as a special advisor on COVID-19 coverage for PBS NewsHour and appeared as an expert on their

news programming. I have also served as a special advisor for their institutional preparedness, news coverage and staff safety related to COVID-19.

4. Since the onset of the COVID-19 pandemic, I have also applied my public health expertise in advising, planning, and executing COVID-19 responses, including at Georgetown University Department of Family Medicine, and for a District of Columbia Council candidate.
5. For four years, I was an elected member of the American Academy of Family Physicians' Commission on the Health of the Public and Science, where I chaired the Public Health Issues sub-committee, addressing issues related to the health of the public in general, and vulnerable populations in particular.
6. My CV is attached as Exhibit A.

II. COVID-19

7. The novel coronavirus, officially known as SARS-CoV-2, causes a disease known as COVID-19. COVID-19 was declared to a pandemic by the World Health Organization (WHO) in March, 2020. In the United States, more than three million people have been infected with the coronavirus, and more than 133,000 have died.¹ The number of infections and deaths in the United States are likely undercounted due to months of under-testing stemming from a variety of issues, including a lack of testing kits, an inadequate supply of personal protective equipment and a sizeable number of people who are asymptomatic carriers of the virus.
8. SARS-CoV-2 is readily spread through respiratory transmission and can be spread by both symptomatic and asymptomatic individuals. All people are susceptible to and capable of being infected with SARS-CoV-2 because of the ease with which the virus spreads and the lack of immunity in the population. The virus is spread through large and small droplets; that is, when an infected individual—whether symptomatic or asymptomatic—speaks, coughs, sneezes, talks, sings, and the like, they expel droplets which can transmit the virus to others in their proximity. Some evidence suggests that the virus can be aerosolized, such that tiny droplets containing the virus can remain in the air and be inhaled by others who come into contact with that air. The virus is also known to be spread through the touching of contaminated surfaces, for example, when an infected person touches a surface with a hand they have coughed into and then another person touches that same surface before it has been disinfected and then touches their face. The virus can survive on contaminated surfaces for up to three days.²
9. In the absence of effective social distancing measures, each infected individual is estimated to infect two to three others, in a community context. This “replication

¹ See *Cases in the U.S.*, CTR. FOR DISEASE CONTROL AND PREVENTION (June 8, 2020), <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>.

² Neeltje van Doremalen et al., *Aerosol and Surface Stability of SARS-CoV-2 as Compared With SARS-CoV-1*, 382 NEW ENG. J. MED. 1962 (2020), <https://pubmed.ncbi.nlm.nih.gov/32182409/>.

number” or R_0 is considered to be high, and is twice that of seasonal influenza. Modeling estimates show that the replication number in enclosed settings, such as cruise ships and nursing homes can be as high as 5 to 10. Infected persons can transmit the virus before they start to show symptoms, and perhaps even for weeks after their symptoms resolve. A substantial fraction of infected individuals, perhaps up to 35%, never show symptoms at all but may still transmit the virus to others.³ Others may be capable of transmitting the virus before they develop symptoms. This means that testing or isolating only persons known to have symptoms will not stop the spread of infection. In addition, some people are so-called “superspreaders,” who are thought to be more infectious than others and contribute to a higher rate of transmission due to a variety of causes, including behaviors and biological factors.

10. COVID-19 is a serious multi-system disease, which can lead to, among other things, respiratory, heart and kidney failure, and death. Older patients and patients with chronic underlying conditions are at a particularly high risk of severe cases and complications.⁴ The need for care, including intensive care, and the likelihood of death, is much higher from COVID-19 than from influenza. According to recent estimates, the fatality rate of people infected with COVID-19 is about ten times higher than a severe seasonal influenza, even in advanced countries with highly effective health care systems. Serious illness, sometimes resulting in death, occurs in approximately 3.4% of cases.⁵ The rate of life-threatening complications is higher among elderly and other at-risk individuals.
11. The Centers for Disease Control and Prevention (“CDC”) has identified underlying medical conditions that may increase the risk of serious COVID-19 for individuals of any age, including high blood pressure, diabetes, chronic lung disease, severe obesity, blood disorders, chronic kidney or liver disease, immunosuppression, among others.
12. Those in high-risk categories may have serious illness requiring hospitalization. For those hospitalized with COVID-19, their care often requires expensive hospital care, including an entire team of health professionals with 1:1 or 1:2 nurse to patient ratios, respiratory therapists, and several specialists, including intensive care and infectious disease physicians. Those infected with coronavirus – both those who were hospitalized and those who had mild to moderate disease not requiring hospitalization – may face prolonged recovery periods, potentially requiring extensive rehabilitation.
13. Coronavirus infection shares many symptoms with seasonal influenza, and other common infectious diseases, including fever, body aches, cough, chills, and headache. Without testing, it is difficult for healthcare providers to ascertain whether an individual with these symptoms is suffering from COVID-19 or another infection.

³ *COVID-19 Pandemic Planning Scenarios*, CTR. FOR DISEASE CONTROL AND PREVENTION (May 20, 2020), <https://www.cdc.gov/coronavirus/2019-ncov/hcp/planning-scenarios.html>.

⁴ Fei Zhou et al., *Clinical Course and Risk Factors for Mortality of Adult Inpatients with COVID-19 in Wuhan, China*, 395 LANCET 1054 (2020), [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30566-3/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30566-3/fulltext).

⁵ *Supra* note 3.

14. Aside from total self-isolation, there is no way to completely protect against SARS-CoV-2 infection. Best practices like mask-wearing, hand hygiene, and social distancing only diminish, but do not eliminate, the risk of infection.

III. Coronavirus Infection Disproportionately Impacts Communities of Color

15. Coronavirus infection has had a disproportionate effect on communities of color and low-income communities, and I expect this disturbing pattern to continue for the duration of the pandemic.⁶ Communities of color suffer from higher infection rates than white communities. Moreover, infected individuals within these communities are more likely to experience serious disease or death than those in white communities. These differential outcomes are caused by a variety of factors, including issues related to access to care, poor quality of care, the higher prevalence of underlying chronic medical conditions among people of color and low-income people, housing challenges, and the larger proportion of the population employed in essential jobs that contribute to enhanced exposure.
16. The Social Determinants of Health are tightly linked to a population's health status, including to their risk of certain health conditions. The Social Determinants of Health are the conditions in a person's life that shape every aspect of their health, including their susceptibility to all kinds of medical conditions and the complications they may face from these conditions. Access to medical care, education, high-quality housing, and nutritional food are examples of Social Determinants of Health.
17. Social Determinants of Health are a major reason why communities of color and low-income communities are suffering disproportionately from SARS-CoV-2. To take just one example, people in low-income communities may live in cramped quarters with more household members. These housing conditions increase the risk of coronavirus spread within a living space and make social distancing more difficult.
18. Because of the Social Determinants of Health, including lack of access to nutritious food and medical care, communities of color and low-income communities also tend to have high rates of chronic underlying medical issues such as diabetes, heart disease, chronic lung disease, chronic liver disease, and other conditions. People with these conditions are at a higher risk of suffering serious illness or death when they contract SARS-CoV-2.
19. Members of these communities are also, on average, less likely to have jobs that allow them to avoid exposure to the general public, such as by working from home. Instead, they are frequently employed as essential workers in positions that involve high levels of public interaction even during the pandemic. For example, grocery store clerks, cashiers, bus drivers, and certain healthcare workers such as home health aides and

⁶ *COVID-19 in Racial and Ethnic Minority Groups*, CTR. FOR DISEASE CONTROL AND PREVENTION (June 4, 2020), <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html>.

nursing assistants are disproportionately people of color.⁷ These roles bring workers into contact with dozens or hundreds of members of the public every day, increasing their risk of contracting the virus.

20. Compounding these issues, minority communities and low-income communities tend to have less access to SARS-CoV-2 testing. Often, testing centers may not be located in minority communities. Even when they are, practices like drive-up testing sites exclude low-income individuals who don't have access to a car. Lack of access to testing prevents individuals, particularly those who are asymptomatic, from knowing the status of their infection, and taking necessary steps to stop the spread of the disease., such as taking sick leave or self-isolating.
21. These trends have played out in Pennsylvania. The State's minority communities, particularly its Black communities, have suffered the most from COVID-19. Black Pennsylvanians are only 12% of the State's population but make up 22% of the State's COVID-19 deaths, and approximately 28% of the State's COVID-19 cases for which racial data has been reported.⁸ According to the PA Department of Health, the vast majority of deaths occurred in the >60 age group (6,096 out of 6,848 or 89% as of July 9, 2020).⁹
22. It is impossible to predict with certainty how the infection rate in vulnerable communities will change as the State begins reopening, but I agree with the vast majority of experts who expect that the factors that have caused increased COVID-19-related illness and death to date mean that communities of color will continue to suffer at disproportionate rates.

IV. Coronavirus Will Still Threaten Public Health in November

23. There is no vaccine to prevent an infection with the novel coronavirus. There is no known cure or antiviral treatment for COVID-19 at this time. It is highly unlikely that a vaccine will be developed by November's election. Even if a vaccine were developed, it almost certainly would not be delivered to a portion of the population large enough to create meaningful community immunity by November.
24. Coronavirus prevention strategies include containment and mitigation. Containment requires identifying and isolating people who are ill or who have had contact with people who are ill. It also requires widespread the use of personal protective equipment such as masks.

⁷ Hye Jin Rho, Hayley Brown & Shawn Fremstad, *A Basic Demographic Profile of Workers in Frontline Industries*, CTR. FOR ECON. & POL'Y RES. (2020), <https://cepr.net/wp-content/uploads/2020/04/2020-04-Frontline-Workers.pdf>.

⁸ *Compare* Pennsylvania COVID-19 Dashboard, Pa. Dep't Public Health (July 8, 2020), *available at* <https://experience.arcgis.com/experience/cfb3803eb93d42f7ab1c2cfccca78bf7>, *with* U.S. Census Bureau, Pennsylvania Population Estimates, July 1, 2019, *available at* <https://www.census.gov/quickfacts/PA>.

⁹ Pennsylvania COVID-19 Dashboard, Pa. Dep't Public Health (July 8, 2020), *available at* <https://experience.arcgis.com/experience/cfb3803eb93d42f7ab1c2cfccca78bf7>.

25. As this infectious disease spreads in a community, public health demands mitigation strategies. There is a wide consensus among public health and medical experts that avoiding congregative environments and practicing scrupulous social distancing is essential to preventing community transmission of SARS-CoV-2. This consensus is the basis for government actions including unprecedented, sweeping bans on gatherings of any size, shelter-in-place orders, and the closure of all but essential buildings. Schools, courts, collegiate and professional sports, theater and other congregate settings have been closed as part of this risk mitigation strategy. On April 1, 2020, Pennsylvania Governor Tom Wolf issued an order for all residents of the state to stay at home except as needed to maintain critical infrastructure.¹⁰
26. As recognized by CDC guidelines, the stay at home orders and mask wearing mandates, the only ways to meaningfully limit the spread of SARS-CoV-2 are self-quarantine, social distancing, mask wearing, frequent handwashing, and disinfecting surfaces. Self-quarantine involves not physically interacting with those outside one's household. Social or physical distancing is maintaining at least six feet of distance between individuals. Both of these interventions are aimed at keeping infected individuals (with or without symptoms) far enough apart from one another so that they do not transmit the virus to others. Frequent handwashing and regular disinfection of surfaces can help curb the spread via contaminated surfaces. None of these steps alone or in combination, however, is guaranteed to halt transmission.
27. Transmission of SARS-CoV-2 is more likely to occur in any location where there is close proximity (less than six feet) between individuals, particularly in small, poorly ventilated indoor spaces. Because transmission of the virus can occur via contact with contaminated surfaces, there is also risk of spread of the virus at any location where multiple individuals touch surfaces.
28. An important infection mitigation strategy is to avoid conditions that lead to "cluster transmission," where a single infected individual transmits the coronavirus to a large number of bystanders. Cluster transmissions occur when large groups of people are put into close spaces and are not able to practice appropriate social distancing protocols, or when many persons have close interactions with a single infected individual. A single cluster event can lead to multiple of new infections.
29. In the United States, clusters have been particularly pernicious in meat-packing plants, where workers are required to work on processing lines in close physical proximity to other workers. Otherwise-healthy workers at meat-packing facilities have become infected with the coronavirus at rates comparable to those in outbreaks in nursing

¹⁰ Gov. Tom Wolf, Plan to Reopen Pennsylvania (July 8, 2020), *available at* <https://www.governor.pa.gov/process-to-reopen-pennsylvania/>.

homes and prisons.¹¹ Other examples of cluster transmissions include choir practices,¹² funerals and birthday parties,¹³ or church services.¹⁴

30. Higher-than-expected infection rates were also recorded in Wisconsin following the April primary elections.¹⁵ A study by the University of Wisconsin noted a “statistically and economically significant association” between in-person voting and the spread of Covid-19 weeks after the election”.¹⁶
31. Despite a surge in Coronavirus outbreaks in a majority of states in the United States, states and localities are continuing to lift some, but not all, containment measures. For example, on April 17, Pennsylvania sketched a plan for re-opening; that plan is now being implemented.¹⁷ It is believed that too rash and unsafe re-opening protocols, are at least partially responsible for the current spike in cases and in hospitalizations.
32. Pennsylvania is one of the states facing an increase in coronavirus cases. On July 7, the state reported 789 new infections, and on July 6 the state reported 804 new infections. These numbers reflect a substantial increase from the number of daily infections reported throughout the month of June.¹⁸
33. It is not possible to predict the pandemic’s severity in November, but the consensus among public health professionals is that community spread will still be a serious threat to public health and that infection and illness rates will remain high. Some experts have warned of a surge in cases in the fall.¹⁹ A major determinant of the infection rate is how much of the population adheres to mitigation strategies, and it is impossible to guess at

¹¹ Michael Corkery, David Yaffe-Bellany & Derek Kravitz, *As Meatpacking Plants Reopen, Data About Worker Illness Remains Elusive*, N.Y. TIMES (May 25, 2020), <https://www.nytimes.com/2020/05/25/business/coronavirus-meatpacking-plants-cases.html>.

¹² Lea Hamner et al., *High SARS-CoV-2 Attack Rate Following Exposure at a Choir Practice — Skagit County, Washington, March 2020*, 69 MORBIDITY & MORTALITY WKLY. REP. 606 (2020), <https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6919e6-H.pdf>.

¹³ Shelby Bremer, *CDC Report Shows How a Funeral and Birthday Party ‘Super Spread’ COVID-19 in Chicago*, NBC CHI. (Apr. 9, 2020), <https://www.nbcchicago.com/news/local/cdc-report-shows-how-a-funeral-and-birthday-party-super-spread-covid-19-in-chicago/2253006/>.

¹⁴ Allison James et al., *High COVID-19 Attack Rate Among Attendees at Events at a Church — Arkansas, March 2020*, 69 MORBIDITY & MORTALITY WKLY. REP. 632 (2020), <https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6920e2-H.pdf>.

¹⁵ Nicholas Reimann, *Coronavirus Infections Spiked in Wisconsin After In-Person Election, Study Says*, FORBES (May 19, 2020), <https://www.forbes.com/sites/nicholasreimann/2020/05/19/coronavirus-infections-spiked-in-wisconsin-after-in-person-election-study-says/#44f29b8514b3>.

¹⁶ Chad D. Cotti et al., *The Relationship between In-Person Voting, Consolidated Polling Locations, and Absentee Voting on Covid-19: Evidence from the Wisconsin Primary*, NAT’L BUREAU ECON. RES. (2020), <https://www.nber.org/papers/w27187.pdf>.

¹⁷ Gov. Tom Wolf, *Plan to Reopen Pennsylvania* (July 8, 2020), available at <https://www.governor.pa.gov/process-to-reopen-pennsylvania/>.

¹⁸ Pennsylvania COVID-19 Dashboard, Pa. Dep’t Public Health (July 8, 2020), available at <https://experience.arcgis.com/experience/cfb3803eb93d42f7ab1c2cfcca78bf7>.

¹⁹ Len Strazewski, *Harvard Epidemiologist: Beware COVID-19’s Second Wave This Fall*, AM. MED. ASS’N (May 8, 2020), <https://www.ama-assn.org/delivering-care/public-health/harvard-epidemiologist-beware-covid-19-s-second-wave-fall>.

what community behavior will look like in November.²⁰ The difficulties in testing for and detecting SARS-CoV-2 will remain, and there are still no known treatments or vaccines. Governments' plans should be based on what we know about the infection right now, including evidence that public gatherings threaten public health and contribute to infection transmission, because we can expect that coronavirus will continue to affect, sicken and kill large numbers of Americans moving forward and into the fall.

V. Spread of Infectious Disease at Polling Places

34. The risk of exposure to infectious diseases in enclosed areas like polling places with many people entering and leaving is significantly higher than in the community generally. There are several reasons why this is the case.
35. A typical polling place contains one or more precincts. In Pennsylvania, the average precinct serves hundreds if not thousands of voters. During a typical presidential election, most of these voters will cycle through a precinct on election day. In a polling place with multiple precincts, that means that hundreds or even thousands of people moving through the same enclosed area – precisely the sort of high-traffic event that increases the risk of coronavirus spread.
36. In advance of elections, poll workers must be trained.²¹ Often, training happens in a group setting, where a poll worker might interact with dozens of other people in a confined space. Poll workers may also have to set up the polling place the night before or morning of the election and take it down after the polls close. Set up and take down can require poll workers to accept deliveries of supplies, move tables and other heavy equipment with other poll workers, and touch surfaces and handle equipment that may have been previously touched or handled by other individuals.
37. During in-person voting, poll workers are stationed at each polling place to assist voters and ensure the election is carried out efficiently and securely.²² A poll worker at the average precinct will be exposed to hundreds of voters over the course of election day. During each interaction with a particular voter, a poll worker might be expected to greet the voter, check their identification, distribute ballots, answer questions, exchange paperwork, help elderly and disabled people navigate the poll site, and carry out other duties.²³ Once the last voter has cast her ballot, poll workers must make sure that every paper ballot that was distributed is accounted for and may also have to count the ballots.²⁴ Each of these discrete interactions puts the poll worker at risk of contracting

²⁰ Mark Harrington, *Expert Consult Models to Predict If Coronavirus Cases Will Spike*, NEWSDAY (June 4, 2020), <https://www.newsday.com/news/health/coronavirus/infectious-coronavirus-model-pandemic-1.45185224>.

²¹ *Election Poll Workers*, NAT'L CONF. ST. LEGISLATURES (Aug. 19, 2019), <https://www.ncsl.org/research/elections-and-campaigns/election-poll-workers637018267.aspx>.

²² *Id.*

²³ *Id.*

²⁴ *Id.*

the novel coronavirus, and each will be repeated dozens or hundreds of times over the course of Election Day.

38. Poll workers are more likely to be older, and as such to have higher rates of certain high-risk conditions. One 2016 survey reported that “the poll worker population is skewed towards older Americans”, and estimated “24 percent of poll workers were 71 or older and another 32 percent were between the ages of 61 and 70”.²⁵ Those two factors (age, chronic medical conditions) put poll workers at a higher risk of serious complications and death from COVID-19.²⁶
39. Congregate settings such as polling places allow for rapid spread of infectious diseases that are transmitted person to person, especially those passed by droplets through coughing, sneezing, or even talking. When people are forced into close, crowded quarters the opportunities for transmission are greater. Precincts, which are almost always public or private buildings repurposed to for Election Day, may be poorly ventilated and promote highly efficient spread of diseases through droplets. Precincts often have a small number of voting booths and privacy screens where ballots might be filled out and cast, which funnels every voter into small, intentionally enclosed areas used by dozens or hundreds of voters before them. This increases the risk of infection.
40. Some voting machines require voters to physically interact with them – for example, by using touch screens or by pushing buttons to indicate their candidate or choice. Others involve the use of privacy envelopes or other documents that are handled by both the voter and the poll worker. Any surface that is touched by multiple voters, or by a voter and a poll worker, needs to be sanitized after every interaction in order to minimize the risk of coronavirus transmission. The combination of a high number of surfaces touched by voters and a large number of voters increases the risk that other voters or poll workers will become infected from touching a contaminated surface.
41. Every surface will have to be can be properly disinfected between voters, which may be difficult to achieve, and may delay voting, causing people to wait outside in for prolonged periods of time. Even if that cleaning was possible, workers tasked with carrying it out would risk contracting SARS-CoV-2.
42. Polling places may be unable to adequately provide the mitigation recommendations described above and still carry out their primary mission of allowing voters to cast ballots effectively. During an infectious disease outbreak, people can protect themselves by washing their hands or frequently using alcohol-based sanitizers when handwashing is unavailable. For a poll worker or voter to sanitize her hands after every voter interaction, however, would substantially increase the amount of time it takes for

²⁵ *Eavs Deep Dive: Poll Workers and Polling Places*, U.S. ELECTION ASSISTANCE COMM’N (Nov. 15, 2017), <https://www.eac.gov/documents/2017/11/15/eavs-deep-dive-poll-workers-and-polling-places>.

²⁶ Michael Barthel & Galen Stocking, *Older People Account for Large Shares of Poll Workers and Voters in U.S. General Elections*, PEW RES. CTR. (April 6, 2020), <https://www.pewresearch.org/fact-tank/2020/04/06/older-people-account-for-large-shares-of-poll-workers-and-voters-in-u-s-general-elections/>.

each voter to cast a ballot, and thus increase already-substantial waiting times. It may also cause skin conditions related to frequent washing and sanitizing.

43. If voters must wait longer to vote, they will inevitably stand in longer lines for more time with more people, exposing themselves to more people who might be infected with the novel coronavirus. In Washington D.C.'s election on June 2, conducted under pandemic conditions, voters stood in lines for up to five hours.²⁷
44. Precincts can easily become coronavirus transmission clusters if an infected voter is waiting in a long line to cast a ballot or an infected poll worker spends all day interacting with voters in the precinct.²⁸ Proper disinfecting protocols can lessen the likelihood that a precinct can become a cluster, but they cannot eliminate the possibility. Pennsylvania has thousands of precincts; if even a tiny fraction become transmission clusters, then the state could see thousands or tens of thousands of new infections.
45. There is no way to hold in-person voting without risking that some members of the public or some poll workers will be exposed to the novel coronavirus. Not every member of the public nor every poll worker will follow best practices, but even if they did – wearing masks and gloves, maintaining six feet of distance between each person, and avoiding the polling place if they have any symptoms of COVID-19 – infection still could not be entirely prevented. Asymptomatic individuals who are contagious but unaware will still vote; people who have mild symptoms may still decide to vote; people who are opposed to mask-wearing in public may show up to polling stations; people may still touch contaminated surfaces and then touch their face; and respiratory droplets containing the virus may still circulate within the polling place.
46. Screening procedures, for example asking voters if they have symptoms or taking voters' temperatures before allowing them to enter a polling place, likewise cannot guarantee that an infection won't spread. Many infected individuals can be asymptomatic or pre-symptomatic. Moreover, many individuals with a coronavirus infection do not have a fever or display the symptoms that the general public has come to associate with the disease, like coughs or fevers. Others are entirely asymptomatic, or have not yet developed symptoms, but are still contagious. Neither group would be identified by common screening procedures.
47. Voters with chronic underlying medical conditions are more likely to suffer serious complications or death from COVID-19. Communities with high rates of risk factors are also communities where the coronavirus has spread most quickly, due to socio-economic factors and the social determinants of health, and thus where in-person voting may contribute to a higher risk of new cases of COVID-19.

²⁷ Julie Zauzmer et al., *Voting Problems in D.C., Maryland Lead to Calls for Top Officials to Resign*, WASH. POST (June 3, 2020), https://www.washingtonpost.com/local/dc-politics/voting-problems-in-dc-maryland-lead-to-calls-for-top-officials-to-resign/2020/06/03/24b47220-a5a8-11ea-b619-3f9133bbb482_story.html.

²⁸ See, e.g., *supra* note 15.

48. Minority communities with high rates of poverty and other risk factors are also communities where polling places tend to have the longest lines and where voting tends to take the most time, increasing voters' likelihood of exposure to the coronavirus. Even before the pandemic, residents of these communities were required to wait in line for longer periods in order to cast a ballot than residents of whiter, more affluent communities.²⁹
49. These risks have all been borne out in states that have permitted in-person voting during the pandemic. In Milwaukee, for example, at least 71 SARS-CoV-2 infections have been tied to in-person voting held in Wisconsin on April 7, 2020.³⁰ Counties that had higher rates of in-person voting during that election suffered a corresponding increase in COVID-19 cases. Additionally, counties that consolidated in-person voting to a small number of polling places saw a larger increase in infections than counties that did not consolidate. Milwaukee, for example, was forced to shut 175 of its 180 polling places due to a lack of poll workers. The five remaining polling places had long lines where voters waited for hours to cast their ballot.³¹
50. Based on my decades of professional experience in medicine and public health, it is my assessment that the risks of in-person voting in the midst of an infectious disease pandemic are clear. In-person voting on election day will undoubtedly increase the chances for exposure to the coronavirus for poll workers and voters alike, leading to entirely preventable cases of coronavirus infections.

VI. Conclusion and Recommendations

51. In my expert opinion, given the clear risks of in-person voting in the midst of an infectious disease pandemic, voters should be encouraged to vote by mail, particularly those individuals who are at especially at risk due to their age, compromised immune systems, or because they live with at-risk friends or family members. Steps taken to encourage and promote voting by mail are reasonable and necessary measures to comply with public health guidelines and recommendations to reduce the transmission of the coronavirus, thereby preventing illness and likely saving lives.
52. For the reasons above, it is my professional judgment that in-person voting will likely expose voters and poll workers to the novel coronavirus, lead to new cases of COVID-19, and result in avoidable illness and even death.
53. These risks will be disproportionately borne by older Americans, low-income communities and communities of color. The disproportionately high prevalence of

²⁹ Matthew Weil et al., *The 2018 Voting Experience: Polling Place Lines*, BIPARTISAN POL'Y CTR. (Nov. 4, 2019), <https://bipartisanpolicy.org/report/the-2018-voting-experience/>.

³⁰ *Supra* note 16. As explained above, any reported numbers are likely undercounting the total number of infections because of the lack of testing and because of the high number of infected by asymptomatic individuals.

³¹ Alison Dirr & Mary Spicuzza, *What We Know So Far About Why Milwaukee Only Had 5 Voting Sites for Tuesday's Election While Madison Had 66*, MILWAUKEE J. SENTINEL (Apr. 9, 2020), <https://www.jsonline.com/story/news/politics/elections/2020/04/09/wisconsin-election-milwaukee-had-5-voting-sites-while-madison-had-66/2970587001/>.

chronic underlying medical conditions and other risk factors in these communities will be compounded by longer wait times and larger congregations of voters waiting in line to cast their ballot.

54. Given that the only viable public health strategies available in the United States currently are risk mitigation and containment, reducing the number of events where large numbers of the general public cycle through enclosed spaces is imperative. Not taking steps to reduce these kinds of events is not only inadvisable but also reckless given the public health realities we now face in the United States.

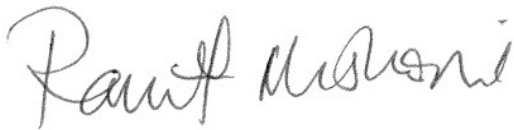
VII. Expert Disclosures

55. I have not testified as an expert at trial or by deposition in the past four years.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 10th day of July, 2020 in Washington, D.C.

Ranit Mishori, M.D, MHS, FAAFP

A handwritten signature in cursive script that reads "Ranit Mishori". The signature is written in dark ink and is positioned below the printed name.